

## CLAIMS

1. A method of performing data communication between a sending user communications unit (400) and multiple receiving user communications units (410-430) in a cellular communications system (1), comprising the steps of:

5 - said sending user communications unit (400) providing data to be communicated to said multiple receiving user communications units (410-430) over said communications system (1);

10 - identifying a set of at least two of said multiple receiving user communications units (410-412; 420-424) being associated with a same cell (15; 25) of said communications system (1); and

15 - simultaneously transmitting said data to said identified receiving user communications units (410-412; 420-424) of said set using a dedicated channel specific for said cell (15; 25).

15 2. The method according to claim 1, wherein said transmitting step comprises simultaneously point-to-multipoint communicating said data using said dedicated channel.

20 3. The method according to claim 1 or 2, wherein said communications system (1) comprises a communications server (100) managing said data communication, said method further comprising, for a user communications unit (400-430), the steps of:

25 - generating, in said communications server (100), session data (144) identifying a communications session, in which said user communications unit (400-430) is participating; and

25 - providing, to said communications server (100), cell information (146) identifying a cell (15; 25; 35) with which said user communications unit (400-430) presently is associated.

30 4. The method according to claim 3, wherein said identifying step comprises identifying said set of receiving user communications units (410-412; 420-424) based on said session data (144) and said cell information (146).

5. The method according to claim 4, wherein said identifying step comprises the steps of:

- said communications server (100) comparing, for a given session data (144), said cell information (146) associated with said multiple receiving user communications units (410-430) with a cell identifier of said cell (15; 25);
- identifying said set of receiving user communications units (410-412; 420-424) based on said comparison.

10. 6. The method according to claim 3 to 5, further comprising, for a user communications unit (400-430), the steps of:

- providing address information (142) associated with said user communications unit (400-430) to said communications server (100); and
- associatively storing said address information (142), said session data (144) and said cell information (146) associated with said user communications unit (400-430) in a database (140) associated with said communications server (100).

15. 7. The method according to claim 3 to 6, further comprising said user communications units (400-430) providing said cell information (146) to said communications server (100) during a communications session set up procedure.

20. 8. The method according to claim 1 to 7, further comprising providing a notification identifying said dedicated channel to said receiving user communications units (410-412; 420-424) of said set.

25. 9. The method according to claim 1 to 8, further comprising point-to-point transmission of said data to receiving user communications units (430) not belonging to said set using a single channel for each user communications unit (430).

10. The method according to claim 1 to 9, further comprising:

- providing, for each receiving user communications units (410-412; 420-424) of said set, radio link quality information;
- determining a lowest link quality based on said provided link quality information; and
- using said lowest link quality for selecting coding scheme for all receiving user communications units (410-412; 420-424) of said set.

11. The method according to claim 1 to 10, wherein said dedicated channel is  
10 a multimedia receiver channel (MMRC).

12. The method according to claim 1 to 11, wherein said data communication is push to talk over cellular (PoC) communication.

15 13. A communications server (100) adapted for managing data communication in a cellular communications system (1), said communications server (100) comprising:

- means (110) for receiving data from a sending user communications unit (400) and intended to be communicated to multiple receiving user communications units (410-430) over said communications system (1);
- means (120) for identifying a set of at least two of said multiple receiving user communications units (410-412; 420-424) being associated with a same cell (15; 25) of said communications system (1); and
- means (110; 310) for simultaneously transmitting said data to said identified receiving user communications units (410-412; 420-424) of said set using a dedicated channel specific for said cell (15; 25).

20 25 30 14. The server according to claim 13, wherein said transmitting means (110; 310) is configured for simultaneously point-to-multipoint communicating said data using said dedicated channel.

15. The server according to claim 13 or 14, further comprising:

- means (250) for generating session data (144) for a user communications unit (400-430), said session data (144) identifying a communications session, in which said user communications unit (400-430) is participating; and

- means (110) for receiving cell information (146) identifying a cell (15; 25; 35) with which said user communications unit (400-430) presently is associated.

10 16. The server according to claim 15, wherein said identifying means (120) is configured for identifying said set of receiving user communications units (410-412; 420-424) based on said generated session data (144) and said provided cell information (146).

15 17. The server according to claim 16, wherein said identifying means (122) comprises:

- means (124) for comparing, for a given session data (144), said cell information (146) associated with said multiple receiving user communications units (410-430) with a cell identifier of said cell (15; 25); and

- means for including a receiving user communications (410-412; 420-424), the cell information (146) of which corresponds to said cell identifier as determined by said comparing means (124), into said set of receiving user communications units (410-412; 420-424).

25 18. The server according to claim 15 to 17, further comprising:

- means (110) for receiving address information (142) associated with a user communications unit (400-430); and

- means (130) for associatively storing said address information (142), said session data (144) and said cell information (146) associated with said user communications unit (410-430) in a database (142) associated with said server (100).

19. The server according to claim 13 to 18, further comprising means (310, 350) for providing a notification identifying said dedicated channel to said receiving user communications units (410-412; 420-424) of said set.

5       20. The server according to claim 13 to 19, further comprising means (210) for point-to-point transmission of said data to receiving user communications units (430) not belonging to said set using a single channel for each user communications unit (430).

10      21. The server according to claim 13 to 20, further comprising a push to talk over cellular (PoC) server (200) comprising said identifying means (120) and a multimedia broadcasting multicasting service (MBMS) server (300) comprising said transmitting means (310).

15      22. The server according to claim 21, wherein said MBMS server (300) is configured for simultaneously transmitting said data using a multimedia receiver channel (MMRC).

20      23. A cellular communications system (1) providing data communication between a sending user communications unit (400) and multiple receiving user communications units (410-430), said system (1) comprising a communications server (100) according to any of the claims 13 to 22.